

## CLAIMS

1. (Original) A method for generating a plurality of clinically useful images in a short time frame using a single imaging system, the method comprising:

generating a scout image configured to prescribe a target image;

processing said scout image to generate an enhanced scout image; and

displaying said enhanced scout image and said target image, wherein said enhanced scout image and said target image are clinically useful images for diagnostic purposes provided by the single imaging system.

2. (Original) The method of claim 1, wherein said enhanced scout image is a scanned projection radiograph.

3. (Original) The method of claim 1, wherein said enhanced scout image is generated as in a planar x-ray developed film.

4. (Original) The method of claim 1, wherein said enhanced scout image is at least one of transferred and archived via propagation of an electrical signal representative thereof.

5. (Original) The method of claim 4, wherein after said propagation of an electrical signal representative thereof, said enhanced projection radiograph is generated as in a planar x-ray developed film.

6. (Original) The method of claim 1, wherein said generating said scout image acts as a localizer in obtaining said target image in addition to serving in generating an x-ray radiograph.

7. (Original) The method of claim 1, wherein said target image is a CT scan image.

8. (Original) The method of claim 1, further comprising:

obtaining projection data for at least one scout scan; and

modifying said projection data utilizing a deconvolution kernel to generate said enhanced scout image.

9. (Original) The method of claim 1, wherein said enhanced scout image and said target image are displayed on one of a single display device and a two separate display devices.

10. (Original) A single imaging system configured to generate a plurality of clinically useful images in a short time frame comprising:

a computed tomography system comprising a computer, a gantry having a detector array, an x-ray source for radiating an x-ray beam along an imaging plane toward a detector array including a plurality of detector cells, the computer coupled to the x-ray source and the gantry, said system configured to:

generate a scout image configured to prescribe a target image;

process said scout image to generate an enhanced scout image; and

display said enhanced scout image and said target image, wherein said enhanced scout image and said target image are clinically useful images for diagnostic purposes provided by the single imaging system.

11. (Original) The system of claim 10, wherein said enhanced scout image is a scanned projection radiograph.

12. (Original) The system of claim 10, wherein said enhanced scout image is generated as in a planar x-ray developed film.

13. (Previously Amended) The method of claim 10, wherein said enhanced scout image is at least one of transferred and archived via propagation of an electrical signal representative thereof.

14. (Previously Amended) The method of claim 13, wherein after said propagation of an electrical signal representative thereof, said enhanced projection radiograph is generated as in a planar x-ray developed film.

15. (Previously Amended) The method of claim 10, wherein said generating said scout image acts as a localizer in obtaining said target image in addition to serving in generating an x-ray radiograph.

16. (Previously Amended) The method of claim 10, wherein said target image is a CT scan image.

17. (Previously Amended) The method of claim 10, further comprising:

obtaining projection data for at least one scout scan; and

modifying said projection data utilizing a deconvolution kernel to generate said enhanced scout image.

18. (Previously Amended) The method of claim 10, wherein said enhanced scout image and said target image are displayed on one of a single display device and a two separate display devices.

19. (Original) A method for generating two diagnostic images of an object using a single computed tomography (CT) imaging system, the CT system including an x-ray tube for emitting x-ray beams and a detector aligned with the x-ray tube for receiving the x-ray beams, said method comprising:

generating a scout image configured to prescribe a target image;

processing said scout image to generate an enhanced scout image; and

displaying said enhanced scout image and said target image, wherein said enhanced scout image and said target image are clinically useful images for diagnostic purposes provided by the single imaging system.

20. (Original) The method of claim 19, wherein said enhanced scout image is generated as in a planar x-ray developed film.

21. (Original) The method of claim 19, wherein said enhanced scout image is at least one of transferred and archived via propagation of an electrical signal representative thereof.

22. (Original) The method of claim 21, wherein after said propagation of an electrical signal representative thereof, said enhanced projection radiograph is generated as in a planar x-ray developed film.

23. (Original) The method of claim 19, wherein said generating said scout image acts as a localizer in obtaining said target image in addition to serving in generating an x-ray radiograph.

24. (Original) A computed tomography (CT) system for generating two diagnostic images of an object, said CT system comprising an x-ray tube for emitting x-ray beams and a detector aligned with said x-ray tube for receiving said x-ray beams, said system configured to:

generate a scout image configured to prescribe a target image;

process said scout image to generate an enhanced scout image; and

display said enhanced scout image and said target image, wherein said enhanced scout image and said target image are clinically useful images for diagnostic purposes provided by the single imaging system.

25. (Original) The system of claim 24, wherein said enhanced scout image is generated as in a planar x-ray developed film.

26. (Original) The system of claim 24, wherein said enhanced scout image is at least one of transferred and archived via propagation of an electrical signal representative thereof.

27. (Original) The method of claim 26, wherein after said propagation of an electrical signal representative thereof, said enhanced projection radiograph is generated as in a planar x-ray developed film.

28. (Original) The method of claim 24, wherein said generating said scout image acts as a localizer in obtaining said target image in addition to serving in generating an x-ray radiograph.

29. (Original) A processor programmed to reconstruct scout images in a computed tomography system, said processor configured to:

generate a scout image configured to prescribe a target image;

process said scout image to generate an enhanced scout image; and

display said enhanced scout image and said target image, wherein said enhanced scout image and said target image are clinically useful images for diagnostic purposes provided by the single imaging system.

30. (Original) A computer-readable medium in an imaging system, said computer-readable medium comprising a stored program configured to:

generate a scout image configured to prescribe a target image;

process said scout image to generate an enhanced scout image; and

display said enhanced scout image and said target image, wherein said enhanced scout image and said target image are clinically useful images for diagnostic purposes provided by the single imaging system.